## INTERNATIONAL SEARCH REPORT



A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F0481/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 F04B F01B F03C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Х	US 4 872 394 A (NAKAGAWA ET AL)	1,2,4-7	
Α .	10 October 1989 (1989-10-10) column 7, line 44 - column 8, line 61 figures 5-9	3	
X	US 3 630 026 A (RICHARD JOSEPH IFIELD) 28 December 1971 (1971-12-28) abstract column 3, line 27 - column 4, line 47 figures 8,12	1,2,4,6,	
A	US 4 624 175 A (WAHLMARK ET AL) 25 November 1986 (1986-11-25) abstract figures 1,3,7	1,6,7	

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents:      A* document defining the general state of the art which is not considered to be of particular relevance      E* earlier document but published on or after the international filling date      L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)      O* document referring to an oral disclosure, use, exhibition or other means      P* document published prior to the international filling date but later than the priority date claimed	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search  10 May 2005	Date of mailing of the international search report  23/05/2005
Name and malling address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Kolby, L

## INTERNATIONAL SEARCH REPORT

Interional Application No PCT/EP2005/001786

		FC1/EF2005/001/86
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Α	DE 200 15 343 U1 (LIEBHERR-MACHINES BULLE S.A., BULLE) 17 January 2002 (2002-01-17) abstract figure 2	1,6,7
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